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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,517	11/14/2003	Doron Gamliel	967AAB	8672
7590	02/01/2005		EXAMINER HAM, SEUNGSOOK	
Kevin Redmond 6960 SW Gator Trail Palm City, FL 34990			ART UNIT 2817	PAPER NUMBER

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/712,517

Applicant(s)

GAMLIEL, DORON

Examiner

Seungsook Ham

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-13,15-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-13, 15-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claim 1 is objected to because of the following informalities:

Claim 1, line 15, "and" (second occurrence) should be deleted. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 4-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1, lines 20-22, "the width of the ground plane being less than a distance...**such that the ground plane does not overlap the third and fourth portions**", and claim 7, lines 15-16, "width that is less...**such that the ground plane does not overlap the third and fourth portions**" are considered as new matter since such limitation was not described in the original specification. In the original disclosure, there is no suggestion that the width of the ground plane does not overlap the third (terminal portion 63, see fig. 1) and fourth portions (terminal portion 59, see fig. 1).

Moreover, the applicant failed to provide the support for such limitation in his response to the last Office Action.

If applicant does not believe that above limitation is indeed "new matter", then applicant should provide an explanation thereof including pointing out where explicit support for the above limitation can be found in the original disclosure.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6-8, 11-13, 15, 18, 19 and 22 rejected under 35 U.S.C. 102(b) as being anticipated by Azuma et al. (JP 09-055335).

Azuma et al. (figs. 4 and 5) discloses a capacitor/filter comprising: first 70 (the top layer), second 60 and third 70 (the bottom layer) dielectric layers stacked on each other to form a multi-layered dielectric block; the block having a top surface formed by the first layer, and a bottom surface formed by the third layer; a first terminal 90 located on the first side surface and having a first portion warping around onto the top and bottom surfaces, and third and fourth side surfaces; a second terminal 100 located on the second side surface and having a second portion wrapping around onto the top and bottom surfaces, third and fourth side surfaces; a third terminal 110 located on the third side surface and having a third portion wrapping around onto the top and bottom surfaces; a fourth terminal 110 located on the fourth side surface and having a fourth

Art Unit: 2817

portion wrapping around onto the top and bottom surfaces; and a ground plane 40 located between the second 60 and the third 70 dielectric layers, the ground plane having a length less than a distance between the first and second portions such that the ground plane does not overlap the first and second portions, and a width of the ground plane less than a distance between the third and fourth portions such that the ground plane does not overlap the third and fourth portions (see fig. 4, the ground plane 40).

Regarding claims 6 and 22, it is inherent from the device of Azuma et al. that the ground plane improves isolation between the first and second terminals since the ground plane 40 does not overlap with the first and second terminals 90, 100 (see fig. 5).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 9, 10, 16, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma et al. (JP 09-055335).

Regarding claims 4, 10, and 17, it would have been obvious to use ceramic material as the dielectric layer in the device of Azuma et al. since it is well known in the art to use ceramic material as a dielectric layer/substrate in electrical filters.

Regarding claims 5, 9, 16 and 20, providing vias to connect the ground plane to third and fourth terminals are considered as a matter of design choice since via connection is well known in the art.

Claims 1, 4-13, 15-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al. (JP '068).

Koga et al. (figs. 1-6) discloses a filter comprising: a first 26, second (the dielectric layer 21 that has inductor internal electrode 22), and third (the bottom dielectric layer 10) dielectric/ceramic layers to form a multi-layered dielectric block; a first terminal 3 located on the first side surface 1 and having a first portion wrapping around onto the top surface and the bottom surface; a second terminal 4 located on the second side surface and having a second portion wrapping around onto the top surface and the bottom surface; a third terminal 5 located on the third side surface and wrapping around onto the top and bottom surface; a fourth terminal 6 located on the fourth side surface 1e and wrapping around onto the top and bottom surfaces; and a ground plane 7c located between the second and third dielectric layers, a length of the ground plane being less than a distance between the first and second portions (see fig. 1, the ground plane 7c does not overlap with the first and second portions of the first and second terminals 1, 4, respectively). Koga et al. does not show the first and second terminals are wrapped around side surfaces. However, such wrapping technique is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to provide the first and second terminals wrapped around the side surfaces in the device of Koga et al. since such technique is well known in the art.

Regarding newly added limitation in claim 1, lines 20-22, "the width of the ground plane being less than a distance...such that the ground plane does not overlap the third and fourth portions", and claim 7, lines 15-16, "width that is less...such that the ground plane does not overlap the third and fourth portions," it appears that Koga et al. also shows the ground plane with a width that is less than a distance between the third portion 5 (the electrode 5 disposed on the top surface, see fig. 2) and fourth portion 6 (the electrode 6 disposed on the top surface, see fig. 2) such that the ground plane does not overlap the third and fourth portions (see fig. 2, the length of electrodes 5, 6 on the top surface appears to be do not overlap the extensions of the ground plane 7c, see fig. 1) .

Regarding claims 6 and 22, it is inherent from the device of Koga et al. that the ground plane improves isolation between the first and second terminals since the ground plane 7a-7c does not overlap with the first and second terminals 1, 4 (see fig. 3 and paragraph [0027]).

Regarding claims 5, 9, 16 and 20, providing vias to connect the ground plane to third and fourth terminals are considered as a matter of design choice since via connection is well known in the art.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 4-13, 15-20 and 22 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed on 1/3/05 have been fully considered but they are not persuasive.

The 102 and 103 rejections in view of Sakamoto et al. (US '553) have been withdrawn in consideration of applicant's newly added limitations to the independent claims 1, 7 and 13.

In regards to Koga reference, the applicant argues that "Koga does not teach, disclose or suggest a ground plane have a width that is less than the distance between the third and fourth portion such that the ground plane does not overlap the first, second, third and fourth portions (see applicant's argument, page 10, fifth paragraph)", the examiner respectfully disagrees.

Koga (see figs. 1 and 2) appears to be showing that the width of the ground plane 7c (or 7a, 7b) is less than a distance between the third and fourth portions (see fig. 2, the electrodes 5 and 6 on the top surface). It should be noted that the extensions 12, 13 (see fig. 1, the ground plane 7a) of the ground plane is not a part of the width (see applicant's figure 14, the extensions that connects via holes 72, 74 are not part of the width of the ground plane 102). Moreover, the applicant's argument is not persuasive since there is no support in the specification that the width of the ground plane does not overlap the third and fourth portions.

Applicant also argues that Koga does not show nor suggest the first and second terminals wrapped around the side surfaces. The examiner also disagrees.

It should be noted that the examiner stated that a wrapping a terminal around the side surfaces is well known in the art. Thus, it would have been obvious to one of ordinary skill in the art to provide the first and second terminals wrapped around the side surfaces in the device of Koga et al. since such technique is well known in the art.



Art Unit: 2817

To support such reason, the examiner cited art of record, Nakamura et al. (US '357, see fig. 2, the wrapped terminals 4), Yamaguchi (US '458, see fig. 17, wrapped terminals G) and Azuma et al. (JP '335, see fig. 2, wrapped terminals 9 and 10). Moreover, Sakamoto et al. (US '553, see fig. 1, wrapped terminals 1b, 1c) also shows wrapped terminals. These references show that the wrapped terminals are well known in the art. Furthermore, the applicant failed to point out why applicant's wrapped terminals are different from other conventional wrapped terminals.

Lastly, applicant argues that Koga does not show the ground plane being located between the second and third layers. The examiner also disagrees with the applicant's remark. It should be noted that the independent claims are written in open-ended transitional term (i.e., "comprising") and does not exclude additional or unrecited elements. Thus, the dielectric layer 10 (where the inductor internal electrode 22 lies) can be read as a second layer and the bottom dielectric layer 10 (where the ground plane 7c lies) can be read as a third layer in Koga reference.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2817

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Seungsook Ham  
Primary Examiner  
Art Unit 2817